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BANK CLEARINGS AND SECURITY PRICES

By Fred R. Macaulay, M. A.

I.

Were I asked to name the half-dozen most important economic factors for an investor or speculator in American securities to carefully watch, I should include among them bank clearings. Considering that both the speculator and the wise investor are more interested in the future than the present, such advice would undoubtedly be held by most financial writers to be slightly unsound. The *Commercial and Financial Chronicle* of New York, for example, has remarked a number of times that, though clearings are of great interest as showing, better perhaps than any other single class of statistics, the *present* condition of business, they are almost valueless as a means of forecasting the future. A Boston market letter writer who has come into print quite often recently and who, partly because he is almost entirely eclectic, well represents his class, thus speaks of clearing statistics:—

"Some people make the mistake of assuming that by studying clearing house statistics one can easily *forecast* business conditions. A study of these statistics *is an aid* in forecasting business conditions and therefore is one of the factors used in making such a forecast, but taken by themselves they are of little value, as they refer only to present-day conditions." [1]

The above writer never discusses New York clearings separately (i.e., other than as contained in the totals for the United States), let alone analyzing the excess of New York over the rest of the country. When analyzed as practically all financial writers analyze them, clearings *are* almost valueless as a guide to the future, but, when correctly analyzed, I believe them to be of paramount importance and that they should be watched by the careful speculator only less closely than such factors as the condition of the New York Associated Banks and the reports of the Comptroller of the Currency.

In this article I shall first point out the methods of treatment of clearing house statistics at present used by financial writers, and then place before the reader a new method of treatment which is, at least, not unmeaning and impotent in the face of the facts.

In examining the methods of treatment at present in use, let us consider:

1. What figures are selected for discussion.

2. With what are such figures compared?

What Figures Are Selected for Discussion?

The *Commercial and Financial Chronicle*, which makes quite a specialty of clearing statistics, makes weekly reports of the week's clearings for the whole of the United States, for the country outside of New York, for New York, and for each other important city in the United States individually. Once a year this magazine publishes an editorial entitled "Clearings and Speculation in the Preceding Year." Here we find quotations as follows:—

[1] R. W. Babson—"Business Barometers for Forecasting Conditions"—page 210.

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YEARLY—New York; outside New York; total United States; a number of leading cities.

QUARTERLY—New York; total "Other Middle"; total New England; total Middle Western; total Pacific; total "Other Western"; total Southern; total all; outside New York.

MONTHLY—Total United States; outside New York.

The first point I wish to draw attention to is that, in discussing such a rapidly fluctuating factor as bank clearings, statements of yearly totals are valueless and statements of quarterly totals of but little significance; we must get down to the month or week to attain anything like an ideal unit.[2] This is not done in this analytical article, and any references, in the week to week notices, are hardly ever more than a mere verbal résumé of the figures themselves.

Secondly, quotations are not given for New York minus the rest of the country in this or any other financial paper that I have ever seen. As I shall attempt to show later, the quotation for "*New York minus the rest of the country*," though it be but a mathematical abstraction, is the one important feature to notice. Without it, the whole subject is but an inexplicable hodge-podge of figures. A glance at the chart annexed to this article will show the regularity with which the clearings for the country outside of New York (E) increase[3] from year to year, and the wild eccentricity of New York's clearings (D). This eccentricity is apparent to the most casual observer, and calls for some explanation. In a correct explanation lies the solution of the whole problem. The *Commercial and Financial Chronicle* (and I refer to it as an example of the best financial journalism of the country) has all along assumed that the eccentricities of New York's clearings were caused by some *non-significant* factor which should be carefully eliminated if the figures were to mean anything. Some years ago it formulated the theory that these vagaries of New York's clearings were caused by stock exchange transactions and that if we were to subtract *twice* the "actual" value of the shares traded in on the New York Stock Exchange (B) from the New York clearings total (D), we would get the "normal business" clearings for New York and a result worth while examining. This factor of 2 was used in 1885[4], 1886[5], and 1887[6]; in 1888[7] the factor was changed to 2½ and remained so until 1892 (inception of the New York Stock Exchange Clearing House) when the whole system was abandoned.[8]

During all this period the outspoken attitude of the *Chronicle* was that the fluctuating factor equalled twice (later 2½ times)[9] the actual value of the shares traded in on the New York Stock Exchange and was of almost no significance, merely fogging the result[10]—that the non-fluctuating factor which remained after the fluctuating one had been subtracted from the New York total, though of no particular significance, was rather interesting as showing New York's "normal business" clearings.

[2] Could MOODY'S MAGAZINE publish such a larg chart, I should prefer to use the week as a unit.
[3] C. & F. Chron. Vol. XC, p. 80. (Jan. 8, 1910.)
[4] C. & F. Chron. Vol. XL, p. 76. (Jan. 17, 1885.)
[5] C. & F. Chron. Vol. XLII, p. 35. (Jan. 9, 1886.)
[6] C. & F. Chron. Vol. XLIV, p. 34. (Jan. 8, 1887.)
[7] C. & F. Chron. Vol. XLVI, p. 5. (Jan. 7, 1888.)
[8] C. & F. Chron. Vol. LVI, p. 6. (Jan. 7, 1893.)
[9] Why this change I do not know. A careful estimate by myself of the same subject under the conditions ruling prior to 1892 leads me to place 1 65-100 as more nearly the truth than either 2 or 2½.
[10] C. & F. Chron. Vol. LX, p. 60. (Jan. 12, 1895.) C. & F. Chron. Vol. LXXXVI, p. 80. (Jan. 11 1908.)

Having to relinquish (after the beginning of the New York Stock Exchange Clearing House) the "2½ method," the *Chronicle* still clung to the "stock sales" theory, though realizing that its practical application was gone[11]. An examination of the two curves (stock sales—B—and New York's Clearings—D—) soon reveals the fact that, though there are many surface similarities, the contours are essentially different.[12] This is entirely aside from a consideration of the true significance of the peculiar irregularities of New York's curve.

We thus see that the figures studied are *Total United States* (which is an hermaphroditic sort of a combination of New York and the rest of the country), *The Rest* (which is of an extremely steady and unfluctuating character and moves, when it does move, after nearly all other factors), and *New York*—when they can eliminate the fluctuating factor! As my object in writing this article is to attempt to show that in this fluctuating factor we find the solution of the whole problem, the above methods of treatment naturally do not greatly appeal to me. Let us now examine:

With What Are Such Figures Compared?

There are four comparisons that have been used by different writers. They are:—

1. With the immediately preceding month.

A mere glance at the chart shows this comparison to be almost meaningless. It takes no account of normal growth or of the great "waves" on which the monthly variations are often but as ripples and foam. Through the influences of seasonal or other temporary factors, the monthly variation may run absolutely counter to the great movement in progress. None but the most ignorant journalists now rely upon such a method.

2. With the same calendar month in the preceding year.

This is the common comparison in use by nearly all financial writers. It is better than number one, but is open to many objections. It does not show at what stage in a movement we are, because there is no possible comparison with what would be normal figures but only with last year's figures, which are probably normal neither for last year nor this year. The method is an incomplete attempt to eliminate seasonal variations in the use of number one, and this brings us to

3. With a ten or twenty year average for the same calendar month.

This is an attempt to eliminate seasonal variations and in so far it is rather good. However, a mere glance at the chart and at the *Ten Year Averages* will convince anyone that seasonal variations in clearings, though facts, are negligible when compared with the variations which occur in great waves covering from two to five or six years. Moreover, the growth element is, in this method, again entirely unconsidered. In *The Rest* this growth element is the great and ever persistent factor, to neglect which, is to be absolutely at sea in an attempt to interpret results.

4. With the immediately preceding month, attempting to eliminate seasonal variations by quoting both months in percentages of a ten-year average for corresponding months.

This method has all the merits of,

[11] In April, 1901, for example, 2½ times the actual value of the stock sales equalled more than the total of New York's clearings. This would give New York a "normal business" of less than nothing! The stock clearing house does not now publish statistics.

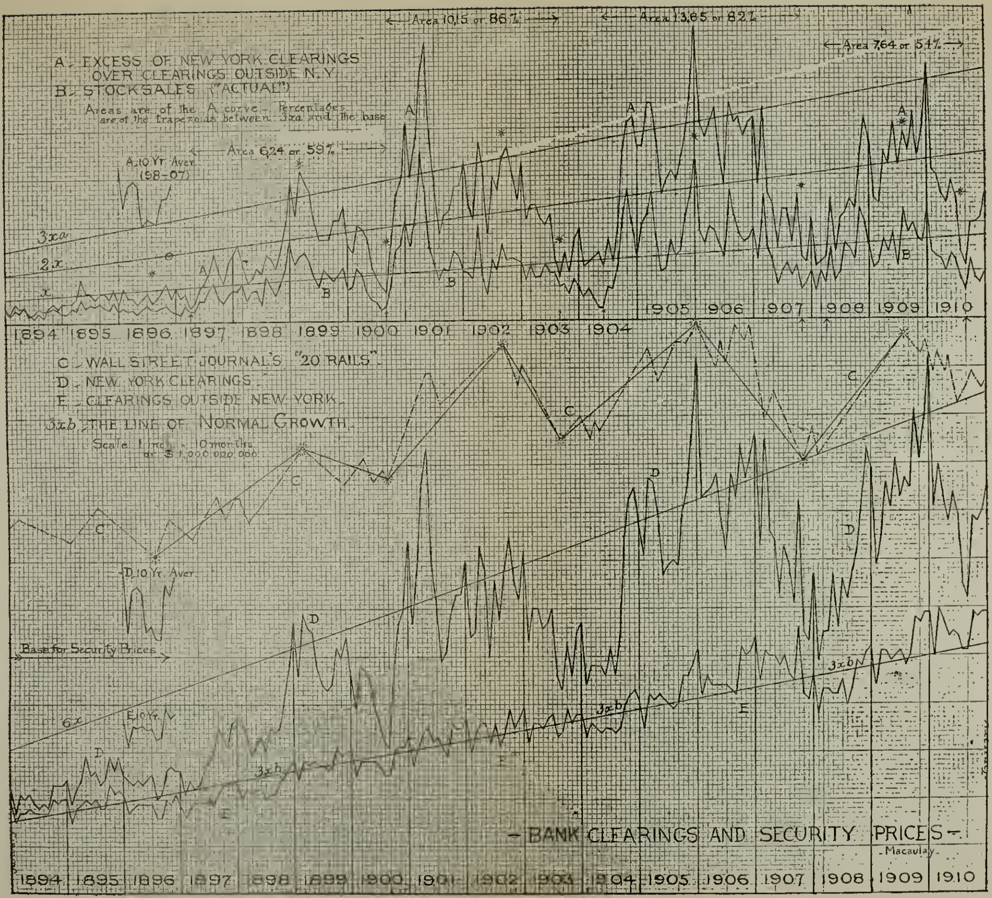
[12] In only 9 months (Sept., 1903, to June, 1904) the ratio of the "Actual Value" to the New York clearings dropped from about 16 per cent to about 6 per cent; the ratio of the actual to the New York excess dropped from about 77 per cent to about 23 per cent. While the one was increasing the other was decreasing. (See chart.)

and but few defects not inherent in, either "two" or "three." However, it absolutely neglects the element of growth, and, like the other methods, often fails to watch the great two and three-year movements. I consider these movements so overwhelmingly important that all the consideration I give seasonal variations is to keep a ten-year average chart at hand by which to roughly check up whether the year's clearings are running in a normal or an abnormal fashion from the standpoint of seasonal variations. Moreover, when we remember that both the supply of, and the rates on, money, also run through a seasonal variation, we begin to see why it is perhaps even better to have the clearings figure in their bare and undoctored shape than in percentages of a ten-year average. The ten-year average is a good servant but a bad master.

II.

Without further discussion of the methods of treatment of others, I shall now attempt to explain and demonstrate a new theory of my own. First of all, a few words as to the chart accompanying this article. All quotations are monthly, the vertical black lines representing January. The *Ten-Year Averages* for New York and The Rest are charted from the lower base. *The Ten-Year Averages* for New York minus The Rest are charted from the upper base. *The lines x, 2x, 3xa, 3xb, and 6x are* such that their ordinates are in the ratio of their numerical coefficients. The line 3xb is, as can be plainly seen, an excellent "fit"—the actual curve as checked up by least squares and areas is so close to this straight line that I considered it better to keep to the straight line than make the chart too difficult for readers to continue—the curve E crosses this straight line 58 times, there are 90 points above and 117 points below—the true curve runs a very little above at each end and below in the middle of the straight line. The dot inside a circle placed on the line 2x in 1896 represents a point such that from that point to the present month the areas of the curve A above the line 2x exactly equal the areas below. Asterisks above the curve A correspond to asterisks on the curve C. All points on the Twenty Rail curve C are true maxima and minima—that is, between any two consecutive points no quotation higher than the one or lower than the other occurs. I begin the chart with 1894 to be beyond both 1892, when stock clearing began and 1893, the year of the panic. My method is to study: (a) the figures in their relation to "growth axes"—(the straight lines). (b) The figures in their relation to each other —(New York to The Rest). (c) The artificial figures for "New York minus The Rest" in their relation to a range between zero (the upper base) and the growth axis for The Rest. (3xa.)

In the first place I base all growth axes on the line 3xb. I have already remarked on the peculiar manner in which the clearings outside New York increase steadily from year to year with comparatively slight fluctuations and these generally of a clearly seasonal nature. When, therefore, New York (D) passes the line 6x or the Excess (A) passes the line 3xa, New York is clearing roughly more than twice what the rest of the country is clearing. I have already pointed out that the line 2x is about the normal for the Excess of New York over The Rest, or in other words, New York normally clears nearly one and two-thirds times as much as The Rest. One great advantage of thus studying New York minus The Rest (A) is that we have a



A - EXCESS OF NEW YORK CLEARINGS OVER CLEARINGS OUTSIDE N.Y.
B - STOCKSALES ("ACTUAL")
Areas are of the A curve - Percentages are of the trapezoids between 3xa and the base
Area 10.15 or 86%
Area 13.85 or 82%
Area 7.64 or 54%
Area 6.24 or 59%
A, 10 Yr. Aver. (98-07)
3xa
2x
x
C - WALL STREET JOURNAL'S "20 RAILS"
D - NEW YORK CLEARINGS
E - CLEARINGS OUTSIDE NEW YORK
3xb - THE LINE OF NORMAL GROWTH
D, 10 Yr. Aver.
E, 10 Yr.
Base for Security Prices
6x
3xb
1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910
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base below which the figures do not go, *but which they sometimes approach*, whereas in studying New York, without The Rest as such a base we cannot judge of the depth of a decline with any degree of accuracy.

New York's clearings may be exhaustively divided into three parts:

1. Clearings originating in transactions outside New York.

2. Clearings originating in *commercial* transactions within New York.

3. Clearings originating in *non-commercial* (or "financial") transactions within New York.

The fact that, in periods when New York's financial or non-commercial transactions are known to be almost at a standstill, the city clears a little more than the whole of the rest of the country, gives a valuable hint as to the average sum total of the clearings originating in transactions outside New York plus the clearings originating in *commercial* transactions within New York—namely, the total amount of the clearings outside of New York for the corresponding month. In other words, the *commercial* transactions originating in New York in general about make up for the transactions outside New York which do not influence New York. The slight Excess of New York over the rest of the country, which continues even in the deepest depression, probably roughly corresponds to the amount of *financial* clearings occuring even then. We thus arrive at the conclusion that the Excess of New York over The Rest about equals the non-commercial or "financial" transactions in New York. (This is curve A.)

Again, New York being the financial center of the United States in a very real and overshadowing sense, we see that this curve is a very good index to the progress of financial transactions in the United States. In New York's financial transactions I include all transactions both on the Stock and Consolidated Exchanges, and also *the vast mass of unrecorded transactions consisting of the sales and promotions, purchases and underwritings, of the bond houses and great private banks, etc.* In a word, the figures plotted on this curve indicate the selling to the public of securities, and later the return of some of the same (at generally lower prices), and thus are an index to the Fixation of Capital and, later, the Progress of Liquidation. This is the reason why the curve is so valuable to consider and why its relations to the maxima and minima of the stock market are so noticeable as to be beyond the realms of coincidence. Fixation of capital naturally brings about a dearth of loanable funds and a fall in the price of securities. Liquidation produces loanable funds and recovery is in the immediate future.

Both these phenomena are very apparent on the curve A. When the excess of New York over the rest of the country approaches anywhere near zero, as it has done in 1900, 1903, 1907, and 1910, liquidation has been in progress for some time and is then probably reasonably complete. When the Excess passes the straight line 3xa or, in other words, when New York is clearing more than twice the normal for the rest of the country, there is revealed a progress of fixation and a condition of tension that cannot long be continued. The Excess curve passed this line 3xa in 1899 and we had the "Rich Man's Panic" of 1900. It passed this line again toward the end of 1900, went to unheard-of heights beyond it in 1901 and remained so through 1902, and we have the extreme slump of

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1903. 1903 was worse than 1900 because the fixation had continued for a longer time. The same results were seen in 1907 and in 1910. A study of the area figures and the percentages will illustrate the wonderful correlation between the *amount* of fixation and the severity of periods of panic or depression.

Conversely, a long period of lowness in the curve, which means inactivity in the financial world and saving in the country at large, is the sure precursor of a period of activity in finance and a rise in the price of securities. The continued low level of this curve during 1894, 1895, and 1896 was followed by "The American Invasion of Europe" and the great bull market of 1897 and 1898. The low level of this curve A in 1900 was followed by the phenomenal rise in securities during 1901 and 1902, and this even though the drop in securities during 1900 was so small as to make it appear questionable whether liquidation was complete or not. The prolonged low level of 1903 and 1904 was followed by the rampant bull market of 1904, 1905, and 1906. So with 1907 and 1908.

The extreme ranges of the market (asterisks) follow the curve A very closely. Whenever this curve crosses, *on the downward movement*, the line x, a turn for the better is probably about to occur. *These turns in the market seem to occur as soon as the curve so crosses the line x without waiting for any recovery in the curve A itself.* Vice versa, whenever the curve crosses, on the *upward* movement, the line 3xa, overexpansion and fixation is indicated and a turn for the worse likely to occur, though when it is not so definite as upon the lower crossings.

I do not claim that this curve A is a touchstone by which, without the aid of other statistics, turns of the market may be predicted, but I do believe that any speculator who would neglect it is acting in a very foolish manner. When used in connection with, say the reports of the New York Associated Banks, for instance, its significance is apparent. One of the surest signs of the approach of liquidation is *the loans passing the deposits.* There is no single sign telling when to *sell* so infallible as this. But all single signs mislead and, again, when shall we repurchase?

Toward the close of 1902 loans began to run in excess of deposits, and then a few weeks later deposits were again in excess of loans—shall our speculator sell out or is the horizon clear? He examines the Excess figures (A) and finds them running up to 3xa or New York clearing twice what The Rest is clearing. Of course he must sell. He waits and in September, 1903, the A curve crosses the x line (i. e., N. Y. equals 1 1-3 The Rest) and he buys *at the bottom.* By the time the deposits have again passed the loans he has a profit of over ten points on the *Wall Street Journal's* 20 Rails!

This is not fakery. The market does not turn because some imaginary line in the head of some theorist crosses another imaginary line. The reasons for the turn are, however, apparent on the lines. While New York is liquidating, *financial* clearings are continuing. When New York (or the country through New York) is through with liquidation the *financial* clearings are almost nil and the line representing the excess of New York over The Rest approaches zero. To sell, watch primarily the loans passing the deposits; to buy, watch primarily the Excess of New York passing the line x (New York clearing less than one and one-third times The Rest).

In the fall of 1905 the loans pass the deposits. Shall we sell? New York Excess is at an extreme height. By all means sell. We get about the top of the market and 1907 only two years ahead! In June, 1907, the excess *touches* the line x but not till November does it decisively cross the line. We then buy at about the bottom—and we dare do this though loans are still sixty million in excess of deposits and there is a huge deficit in the reserves. Liquidation is complete, however, and a turn for the better is due. On November 6, 1909, the loans pass the deposits and the New York surplus is down to five million. The New York Excess has not yet passed the 3xa line, but is fairly high. We can sell here at almost the top or wait till the Excess does pass the line 3xa early in January, when we do not get as high a figure but still have the range running clear down toward July 26 for profit taking. In August, 1910, the Excess goes well below the line x and if we buy the 20 Rails at the beginning of September, we purchase them at less than 111, with an opportunity in February to realize over 119 *and never a day on which the price ranged below the purchase price.*

Finally, what is the present outlook? In the first place, in writing an article like this, I am attempting to explain one market factor. We must not forget, however, that other factors should be considered. We are already (April 25) eight months ahead of where New York's Excess clearings point to a comparative completion of liquidation; we are fourteen weeks ahead of where the deposits passed the loans and the surplus reserves began to increase; both surplus deposits and surplus reserves are now in an extremely easy condition; money is almost a drug on the New York market; from an extremely unfavorable balance of trade, we have passed to a condition of the very opposite nature; *and yet stocks do not stand half way up from the low level of* 1910 *to the high of the same year!* Of course the universal reason given for such hesitancy is the Supreme Court decisions.* But I believe we overestimate their significance. In the long run "money talks" and the monetary factors are at present decidedly bullish.

The present situation is not altogether without precedent. In August, 1903, the New York Excess crossed the line x. Loans had passed deposits late in 1902 and from that date through 1903 and up into 1904 the ratio of loans to deposits and the condition of the reserves were month by month astonishingly similar to the conditions in the same factors during the fall of 1909, through 1910, and into 1911. The market turned in August, 1903, but became more and more sluggish until June, 1904, when stock sales touched a minimum—exactly similar to our own experience so far. In the meantime the market had recovered but little (see chart). It was awaiting the decision of the Supreme Court on the Northern Securities case. The long-looked-for decision came on March 14, 1904. *It was adverse, upholding nearly all the government's contentions,* and was followed *by the gigantic bull movement which terminated* in 1906!

* Mr. Macaulay's article was written three weeks before the Standard Oil decision was announced. -Editor.